

## **REMARKS**

Claims 1-13 and 18-53 remain in the application.

Claims 1, 18, 22, 25, 35, 36, 37 42 have been amended to include the “lens member integrally attached to ... the optical waveguide lens” feature. Support for this feature is on Page 12, line 31 which describes “the lens member 14 being integrally attached to the optical waveguide 12”. Furthermore, Applicant’s point to the methods of making the optical waveguide lens described on page 9, lines 2-3 and page 12, line 10 which are as follows, respectively: (1) “lens member 14 is attached to the optical waveguide 12 at a junction formed by fusing splicing the lens member 14 to the optical waveguide 12”; and, (2) “Heat is applied and the optical waveguide 12 and the lens blank 34 contact and are pressed against one another until fused together. In short, the methods utilizing “fusion splicing” and “fusing together” result in the integral attachment of the lens member to the optical waveguide

### **1. Claim Objections:**

Claims 4, 21, 24, 28 and 49 are objected to because of certain informalities. In particular the Examiner suggests that “ ‘weight’ should be changed to –mole-- to be consistent with the specification”.

Applicants call to the Examiner’s attention the response filed by the Applicant’s on September 4, 2003 (Page 2) which indicates the submission of replacement pages 3 and 14 which amend the terms “mole percent” and “mol%” to read “weight percent” and “wt%”, respectively.

Based on the above, Applicant respectfully requests that the claim objections should be withdrawn.

### **2. §102 Rejections**

Claims 1, 22, 25, 35-36 and 46 have been rejected under 35 USC §102(b) as anticipated by Seiji. Particularly, the Examiner asserts that Seiji (Figures 1-6) shows an optical waveguide 13 and a lens member 10 with a spherical lens portion 11 and a throat portion 12 having a cross-sectional dimension greater than that of the optical waveguide.

Furthermore, the Examiner contends that “Seiji ... teaches a method of making the lens and used in a passive, active optical components such as switch component or router, multiplexer, demultiplexer, etc.

Prior to discussing the Seiji reference, it should be noted that Applicants have amended claims 1, 22, 25, 35, 36 and 46 to include the feature that the “lens member (which includes the throat portion and a generally spherical lens portion) is integrally attached to and extends from the end of the optical waveguide.

Applicants have reviewed Seiji (JP 540066152) in great detail, and particularly Figs. 2 and 3. Fig 2 discloses that the spherical core of the spherical lens 11, the glass block 12 (which the Examiner contends is the neck portion) and the optical fiber 13 are configured such that the optical fiber and the glass block/neck portion makes *contact* (emphasis added) at position A, which is selected to be the focal point of the spherical lens 11. Fig. 3 discloses the use of a peripheral apparatus which maintains/holds the position of the spherical lens (contact at point B) and glass block *in contact* with the optical fiber. Furthermore, Seiji discloses that the spherical lens angle can be adjusted by use of an adjusting rig so that the incident light of the optical fiber and the exit light of the spherical lens can be adjusted to be parallel to each other. This independent adjustment of the spherical lens (separate from the optical fiber) implies that the lens and the fiber are not integral and are, though in contact, independent of each other and thus not integral with each other.

As such, Applicants assert that in both the Fig. 2 and 3 configurations the optical fiber is merely maintained *in contact* with (and are not integrally attached to) the glass block/throat portion. Thus, it can be stated with certainty that the cited portions of Seiji therefore do not appear to explicitly or implicitly teach a lens member which is “integrally attached to and extends from the end of the optical waveguide”. For this reason, Seiji does not anticipate the invention as recited in claims 1, 22, 25, 35, 36 and 46 each of which includes this “integral” feature.

### 3. §103 Rejections

Claims 2-13, 18-21, 23-24, 26-34, 41 and 47-53 have been rejected under 35 USC §103 (a) as being over Seiji ((JP 540066152).

Claims 2-13, 18-21, 23-24, 26-34, 41 and 47-53 each include the limitation of “a lens member which is “integrally attached to and extends from the end of the optical waveguide”. As discussed above, the lens disclosed in Seiji does not include a “lens member which is integrally attached to and extends from the end of the optical waveguide”. The Examiner has not cited any other references to overcome this deficiency in Seiji. Therefore, claims 2-13, 18-21, 23-24, 26-34, 41 and 47-53 are patentable. Withdrawal of the rejection of claims 2-13, 18-21, 23-24, 26-34, 41 and 47-53 is respectfully requested.

Claims 37-38, and claims 39-40 have been rejected under 35 USC §103 (a) as being as being unpatentable over Lebduska (4078852).

Claims 37-38 and 39-40 each include the limitation of “a lens member which is “integrally attached to and extends from the end of the optical waveguide”. As discussed above, the lens disclosed in Seiji does not include a “lens member which is integrally attached to and extends from the end of the optical waveguide”. The Examiner has not shown that Lebduska overcomes this deficiency in Seiji. Therefore, claims 37-38 and 39-40 are patentable. Withdrawal of the rejection of claims 37-38 is respectfully requested.

Claims 42-45 have been rejected under 35 USC §103 (a) as being unpatentable over Konno (5293438) in view of Lynch (4844580).

Initially, it should be noted that original claims 14-17 were previously indicated as allowable over the prior art, particularly Konno; see PTO communication of February 6, 2003. Claims 14-17 were canceled, and the corresponding subject matter recited in new claims 42-45, with claim 42 (43-45 being dependent therefrom) being rewritten to include all of the limitations of the previously allowable base claim.

Reiterating arguments previously being made by the Applicants and resulting in Examiners statement of allowance, particularly of independent claim 42 (in view of Konno), “an optical waveguide lens with a member having a throat with a diameter larger than the diameter of a waveguide coupled to the lens member, as required by the independent claims ... 42, was not found in the prior art”. The Examiner has not shown

that newly cited Lynch reference either explicitly or implicitly teaches a lens with a member having a throat with a diameter larger than the diameter of a waveguide coupled to the lens member. Therefore, claims 42-45 are patentable. Withdrawal of the rejection of claims 37-38 is respectfully requested.

#### 4. Conclusion

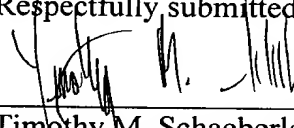
Claims 1-13 and 18-53 are believed allowable over the art of record for the reasons discussed above, and reconsideration of those claims is respectfully requested

Based upon the above amendments, remarks, and papers of records, applicant believes the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Applicant is aware that an extension of time is necessary to make this Reply timely. Applicant respectfully requests that the Office grant the attached two (2) month extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Reply timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

Please direct any questions or comments to Timothy M. Schaeberle at (607) 974-3164.

Respectfully submitted,



---

Timothy M. Schaeberle  
Attorney for Assignee  
Reg. No. 34,424  
Corning Incorporated  
SP-TI-03-1  
Corning, NY 14831  
607-974-8803

Date: February 1, 2006